STATISTICS COLLECTION FRAMEWORK FOR A NETWORK PROCESSOR

ABSTRACT OF THE DISCLOSURE

Methods and devices for wire-speed packet statistics collection in a network processor are disclosed. A control-plane process maintains a dynamic packet rule set, each rule specifying a packet offset, a data pattern to be found at that offset, and an action to be taken if that data pattern is found. One or more packet processing engines process the packet rule set for incoming packets and take actions such as updating counters in a counter table when a rule evaluates true. The control-plane process can access the counter table to monitor which rules are triggered by packet traffic with what frequency.